#### PROCEEDINGS

OF THE

## BIOLOGICAL SOCIETY OF WASHINGTON

# TWO NEW ISOPODS OF THE GENUS *IDOTEA* FROM THE COAST OF CALIFORNIA.\*

#### BY JAMES E. BENEDICT,

Assistant Curator, Division of Marine Invertebrates, U. S. National Museum.

The two species described in this paper come within the limits of *Idotea* as recognized by E. J. Miers in his monograph of the Idoteidæ.† · If several more species are found with the epimeral characters of *Idotea carinata* Lucas and *I. rostrata* here described, the former species may become the type of a distinct genus. At present the division would, in my opinion, be unwarranted.

#### Idotea rostrata sp. nov.

This species is probably more nearly related to  $Idotea\ carinata\ Lucas\ \ddagger$  than to any other described Idotea.

The head is excavated in front; the antero-lateral angles are rounded and upturned. The eyes are lateral, large and very slightly projecting. Above the eyes the head is elevated. The head projects forward on the median line forming a tubercular rostrum. In the larger specimen the occipital suture is an irregular impressed line; the entire surface of the head is minutely rugose. The articles of the peduncle of the antenna are short and stout; the length of any article not being more than two or two and one-half times its greatest width. The flagellum on one side is composed of seven stout and distinct segments, on the other side of six.

<sup>\*</sup> Published by permission of the Secretary of the Smithsonian Institution.

<sup>†</sup> Journ. Linn. Soc. Lond., XVI, pp. 1-88, 1883.

<sup>‡</sup> Lucas, Hist. Nat. des Anim. in Expl. Sci. Algérie, Crust., p. 60, pl. vi, fig. 1, 1849. Miers, Journ. Linn. Soc. Lond., XVI, p. 58, 1883.

The antennulæ reach the distal margin of the third segment of the antennæ; their basal joints are broad.

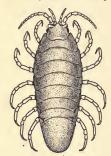


Fig. 12.—Idotea rostrata.  $(\times 3.)$ 

The thorax is convex and nearly smooth: the first, sixth, and seventh segments are about equal in length; the third, fourth, and fifth are broadest; the second is intermediate; the first segment, as in carinata, is deeply excavated, the antero-lateral lobes reaching to the eyes; both lateral angles of the other segments are about equally rounded. The epimera show only on the three posterior segments: on the fifth it shows slightly on the middle of the margin; on the sixth it occupies the posterior twothirds and is quite broad posteriorly; on the seventh its occupies one-half the margin and is triangular in form.

The legs are moderately slender. With the exception of the first pair, the basal articles of all have a small tubercular protuberance.

The abdomen tapers with the body and is evenly rounded behind; it consists of a single segment with a suture near the base as in Symidotea. The operculum is not crossed by an oblique line. There is a broad shading of purple along the dorsum. The margins of the articles of the antennæ and the dactyls are rosy.

This description is made from two females from San Pedro, California, presented by Mr. S. J. Holmes. The larger specimen is 12 mm. in length. The sides of both are arcuate as is usual in the females of Idotea,

### Idotea stenops sp. nov.

A single large female *Idotea* is in the collection from Monterey, California, where it was taken by Mr. Henry Hemphill.

In general appearance the species closely resembles I. ochotensis, but more careful examination shows it to be specifically distinct. The outline of the body is similar to that of the female of ochotensis. The head is more deeply excavated on the anterior margin than in that species. The posterior margin is concave.

The eyes are situated a little behind the middle of the exposed lateral margin and are five times longer than broad, placed transversely just anterior to the eye, the surface and margin excavated.

The antennæ are similar to those of ochotensis, but the flagellum has 15 articles.

The thorax is widest at the third and fourth segments. The epimera of the second segment reaches the postlateral angle and is much wider in the anterior portion. The epimera of the third and fourth segments are



Fig. 13.-Idotea stenops. (Natural size.)

widest in the middle and cover the ends of the segments with the exception of the apex of the posterior angles. The epimera of the fifth, sixth, and seventh segments cover the ends of the segments and are very wide on their posterior margins.

The epimera of ochotensis are strikingly different. In the second segment they occupy the anterior half of the margin, in the third about three-fifths, and in the fourth the anterior three-quarters. The epimera of the fifth segment covers all but the apex of the posterior angle. The margins of the sixth and seventh segments are covered by the epimera. In the last three segments the anterior part of the epimera is narrow where in stenops it is wide.

The abdomen of *stenops* is composed of three segments. Another segment is indicated by a suture. The basal half of the abdomen is tapering; the posterior half has parallel sides; the posterior angles are rounded and very slightly produced behind. The apex is acute. The surface of the body below the median line is flattened, forming an obtuse ridge from the base of the head to the apex of the abdomen.